

A Bird's Solution!

1. Robins and Earthworms

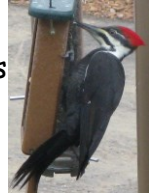
Robins eat about 14 feet of earthworms per day. How many feet would this equal in one week's time?



$$14 \times 7 = 98 \text{ Feet}$$

2. Pileated Woodpecker Drums

A Pileated Woodpecker typically drums 15 times in a series. A series is repeated 5 times every 60 seconds. How many drumbeats would this be over a ten-minute period?

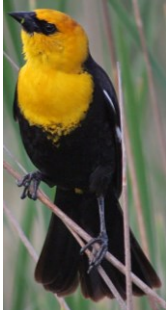


$$15 \times 5 = 75 \text{ per minute}$$

$$75 \times 10 = 750 \text{ drumbeats per 10 min}$$

3. Yellow-headed Blackbird

Yellow-headed Blackbirds live in cattail marshes. A cattail head typically has 300,000 seeds. If there are 1,000 cattail heads in an acre, how many seeds would you expect in one acre?



$$300,000 \times 1,000 = 300,000,000 \text{ cattail seeds}$$

4. Hummingbird Food

a. Hummingbirds eat 30% of their body weight daily. If you weighed 100 pounds and ate 30% of your weight, how many pounds of food would you need to eat daily?



b. How many Quarter-pounders would you need in a day?

$$100 \times 0.30 = 30 \text{ pounds}$$

$$4 \text{ quarter pounders} = 1 \text{ pound}$$
$$30 \times 4 = 120 \text{ quarter pounders}$$



Cooper's hawk: To raise one Cooper's hawk to the age of six weeks, an average of 66 robin-size prey are needed for food.

- a. How much prey would a Cooper's hawk need to raise 3 chicks for six weeks?

$66 \times 3 = 198$ prey for 3 birds

- b. How many for 4 chicks?

$66 \times 4 = 264$ prey for 4 birds

- c. How many for 5 chicks?

$66 \times 5 = 330$ prey for 5 birds

- d. What things in your life can be compared to this?

Number of times you eat as a baby compared to an adult

6. Grow Red-winged Grow!

The male red-winged blackbird chick will increase in weight by a factor of ten in the first ten days.

- a. Multiply your own birth weight by ten.

Example: birth weight = 8 pounds

$8 \times 10 = 80$ pounds



- b. At this rate how much would you weigh in one month (30 days)?

$30 \text{ days} / 10 = 3$

$3 \times 80 = 240$ pounds in one month



7. A Great Gray Owl Invasion

Minnesota winters can be harsh, some years great gray owls must travel south in search of prey. Recent invasions in central Minnesota happened in 1989, 1993, 1997, 2001, 2005, 2009 and 2014.

- a. What pattern do you notice occurring between these invasion years?

Common factor = Each invasion year is 4 years apart

- b. Based on this pattern what most likely will be the next two invasion years?

2018 and 2022